winter 2013 bearriver

localinsights

An economic and labor market analysis of the Bear River Area

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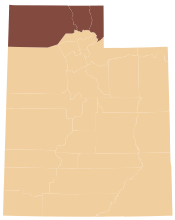
in this issue:

Occupational Projections *for Bear River*



BY TYSON SMITH, ECONOMIST

One of the primary roles of the Department of Workforce Services (DWS) is to collect, analyze and forecast employment information for the State of Utah. In cooperation with the U.S. Bureau of Labor Statistics (BLS), DWS collects monthly unemployment estimates, quarterly nonfarm industry employment counts, semi-annual occupational employment statistics, along with many other pieces of labor market data. These data sources, when observed in totality, paint a comprehensive portrait of the state's labor economy. However, each source is tailored to address a specific aspect of the labor market, which makes the evaluation of a singular source a uniquely informative process.

Education administrators, business leaders and policy makers consider occupational information some of the most valuable labor data available, and the premier source for job-specific data is the BLS' Occupational Employment Statistics (OES) program. OES produces employment and wage estimates for over 800 occupations at the national, state and metropolitan statistical area (MSA) level. The sampling methodology for the OES survey makes the data the most complete and accurate estimation of occupational information in the United States. In turn, decision-makers across the country use OES employment estimates to approximate the labor supply for a given occupation in a given geography and to establish competitive wages.

Understanding the occupational composition of a region is important to employers and workers because occupational employment estimates measure the number of workers and the value of wages for employees who perform similar activities and tasks. For example, when businesses want to increase their workforce they are concerned with the ability of the applicants to execute the tasks required to complete the job. Similarly, when workers enter the job market they are concerned with the skills required of them to perform their assignment. Both parties also want to gauge the potential size of the applicant pool and the average wage for a given occupation. The OES survey is the only tool that collects occupation-specific information from approximately 4,000 Utah firms each year.

As an added value to the community, DWS develops biennial occupational projections for Utah and its sub-state geographic areas. Occupational projections are the end product of two

Figure 1: Major Occupational Groups

Major Occupational Groups	Employment Estimates		Annual Growth Rate	Total Annual Openings	Location Quotient
	2010	2020			
Total, All Occupations	73,120	87,120	1.9%	3,180	—
Office and Administrative Support	10,990	12,980	1.8%	450	0.9
Production	9,810	11,010	1.2%	340	2.1
Sales and Related	7,120	8,430	1.8%	350	0.9
Transportation and Material Moving	5,300	6,490	2.2%	250	1.1
Education, Training, and Library	4,930	6,190	2.6%	230	1.0
Food Preparation and Serving Related	4,750	5,660	1.9%	250	0.7
Management	4,020	4,350	0.8%	130	1.2
Construction and Extraction	3,620	4,840	3.4%	190	1.2
Installation, Maintenance, and Repair	2,720	3,310	2.2%	120	1.0
Healthcare Practitioners and Technical	2,620	3,400	3.0%	130	0.6
Personal Care and Service	2,250	2,990	3.3%	130	1.1
Building and Grounds Cleaning and Maintenance	2,190	2,550	1.7%	80	0.9
Business and Financial Operations	2,050	2,530	2.3%	90	0.6
Healthcare Support	1,880	2,490	3.2%	90	0.8
Architecture and Engineering	1,850	1,760	-0.5%	60	1.4
Farming, Fishing, and Forestry	1,500	1,480	-0.1%	50	6.4
Community and Social Service	1,140	1,480	2.9%	60	1.0
Arts, Design, Entertainment, Sports, and Media	1,110	1,370	2.4%	60	1.1
Computer and Mathematical	1,040	1,230	1.9%	40	0.6
Protective Service	1,000	1,140	1.5%	40	0.5
Life, Physical, and Social Science	960	1,100	1.4%	50	1.6
Legal	280	350	2.4%	10	0.5

Occupational Projections Continued

projections processes. In the first process, industry projections are generated, which form the limit of the total number of jobs in the base year (2010) and the projected year (2020). In the second step of the process the occupational projections use staffing patterns – the distribution of employment by occupation in each industry – from the OES survey to distribute the industry employment counts across the occupations. Finally, the projections are used to estimate the average number of annual job openings that are expected during the forecast period.

An examination of the OES estimates and the DWS occupational projections for Bear River reveal unique insights into the labor market of the region.

Major Occupational Groups

The OES survey uses the Standard Occupational Classification (SOC) system to group workers and jobs that perform similar functions into occupational categories. All workers are classified into one of 840 detailed occupations. To facilitate classification, detailed occupations are combined to form 461 broad occupations, 97 minor groups, and 23 major groups.

In Bear River, the five largest major occupational groups (by employment) in 2010 were estimated to be: (1) office and administrative support, (2) production, (3) sales and related, (4) transportation and material moving, and (5) education, training, and library. Of that collection, production was the only major group not ranked in the top five nationally. Figure 1 tabulates the distribution and expected growth of the major occupational groups in the region. Only two of the five largest occupational groups, as measured by base employment counts, were projected to grow faster than the annual average for the region of 1.9 percent per year. Despite lower than average growth rates, these occupational groups represented half of the projected annual job openings. This

is because even modest growth in large occupational groups translates into large numbers of job openings each year. In total, the five largest occupational groups contained approximately 38,150 total workers in 2010, or 52.2 percent of the labor force in the region.

The Location Quotient (LQ) column in Figure 1 identifies any major occupational groups that have regional labor specialization. LQ are a formula used to measure the relative employment concentration of a given occupation in a given location in relation to some larger geography, usually national. As a rule of thumb, an LQ of 1.2 or higher represents an occupational group with a relatively high regional concentration of employment, while a score of 0.8 or lower represents a comparatively small presence of an occupational group. The most notable occupational groups that display regional specialization within Bear River are production, architecture and engineering, management, and construction and extraction occupations with LQs of 2.1, 1.4, 1.2, and 1.2, respectively.

Data from the major occupational groups provide a general view of the occupational environment in a region, but a more detailed evaluation of the occupational landscape yields a deeper understanding of the labor force. While it would be impossible to discuss each of the 840 occupations captured by the OES program, the DWS occupational projections offer a few notable factors by which the data can be sorted and analyzed.

"Star Ratings" and Projecting Annual Job Openings

The primary indicator of an occupation's employment outlook is the total number of job openings available each year. Annual openings generally reflect the size of the employment base in an occupation, and the expected future employment over the 10-year projection period. Job openings occur for one of two reasons: economic expansion or replacement of workers. In the first case, an increase in the demand for a product or service, or the expansion of a firm into a new market, results in an increased demand for workers capable of producing that product or service. In the latter case, workers may opt to leave an occupational listing by switching careers, retiring or moving away. When this happens the vacant position needs to be refilled by a new worker.

Part of the projection process is to evaluate the overall employment outlook for each occupation. DWS employs a rating system as a means of giving general career guidance about job openings and wages. Utah's Occupational Star Ratings assign a "star value" to each occupation as a guideline for the employment outlook. Those occupations with zero stars have the worst employment outlook; those with five stars have the best employment outlook[1]. Moreover, because the absolute number of job openings is weighted heavily in this process, the highest rated jobs often have the highest number of openings.

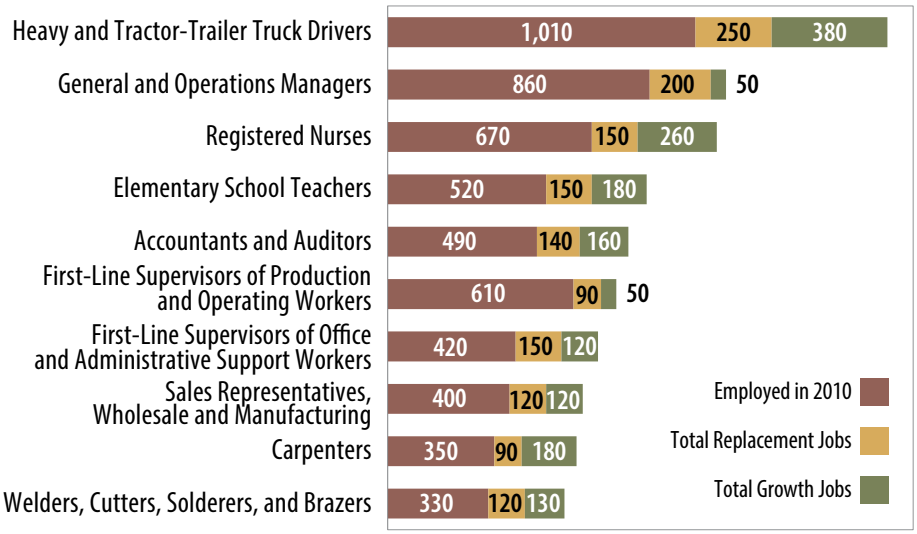
Figure 2 highlights the four and five star occupations that project to have the highest total employment by 2020. The chart illustrates the relationship between base employment and job openings. In Bear River, it is expected that there will be approximately 1,640 heavy and tractor-trailer truck drivers employed by 2020, with 1,010 of those future positions already filled in 2010. Truck drivers project to have almost 40 growth openings available each year—the highest number of growth openings among the four- and five-star occupations—followed by registered nurses (30), elementary school teachers (20), and carpenters (20).

Although the number of job openings is the central component of the employment outlook, there are other occupational factors explored for the Star Ratings.

Occupational Wages, Educational Attainment and Growth Rates

Wages play a significant role in determining the potential employment outlook for an occupation. High paying jobs represent occupations with a higher standard of living than low paying jobs. In addition to wages, growth is another important element to consider when establishing occupations with a positive outlook. When an occupation grows at an accelerated rate there is typically

Figure 2: Total Occupational Employment in 2020 (Largest 4 and 5 Star Occupations)



1 Ratings are meant to provide general guidance about openings and wages and are not the final word on the desirability of a particular occupation. Star ratings should not be used to exclude occupations for training purposes.

Occupational Projections Continued

upward pressure on wages, because firms use higher compensation to attract more qualified applicants. There is also ample opportunity to find a job in an occupation that is expanding quickly. Figure 3 illustrates the ten highest-paying and ten fastest-growing occupations in Bear River with a minimum of 100 workers in 2010.

Figure 3 highlights the effect of educational attainment on wages. Eight of the ten highest paying jobs require at least a bachelor's degree. The ten highest paying jobs in the region are exclusively white-collar occupations in major occupational groups like business and financial operations and management. The highest paying job is Chief Executives at a median wage of $49.20 per hour, and the lowest paying job of the group is software application developers at $33.20 per hour. Individual wages for many of the doctoral or professional degrees cannot be disclosed; however, Figure 4 shows the wage potential of those degrees in the aggregate.

The second table in Figure 3 shows that most of the fastest-growing jobs in the region do not require high levels of educational attainment. In fact, seven of the ten fastest-growing occupations require at most a high school diploma. The majority of the fastest-growing jobs are in the construction and extraction and healthcare support major occupational groups. The emphasis for these occupations is on experience or certification, and in most cases the wages reflect the lower educational requirements. Nonetheless, these occupations are growing twice as fast as the rest of the local economy.

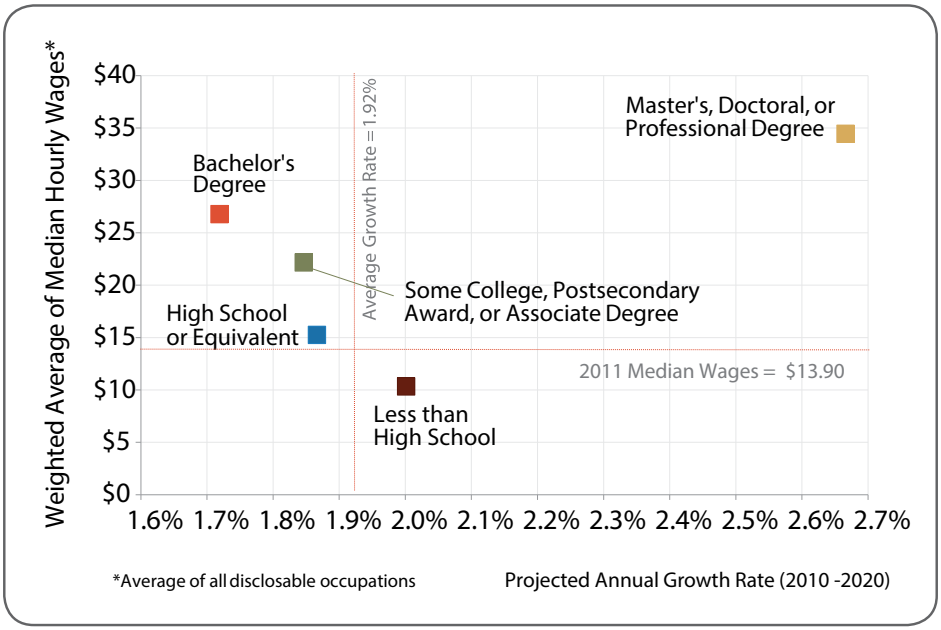
There are multiple sources of labor market data available through government and non-government agencies and each data set provides a piece of the economic puzzle. The OES program offers unique insights into occupational employment, and is one of the most comprehensive sources for occupation-specific information. Understanding the occupational profile of a region, and the ways in which that profile will change over time, is indispensable for local employers, legislators, and the workforce.

Figure 3: Highest Paying Occupations

Highest Paying Occupations	Employment Estimates 2010	Employment Estimates 2020	Annual Growth Rate	Median Hourly Wage	Education
Chief Executives	150	170	1.4%	$49.20	Bachelor's degree
Financial Managers	150	170	1.4%	$48.40	Bachelor's degree
Industrial Production Managers	120	150	2.0%	$41.70	Bachelor's degree
Education Administrators	110	130	2.1%	$40.00	Master's degree
Civil Engineers	120	140	2.1%	$39.80	Bachelor's degree
Medical and Health Services Managers	100	130	2.6%	$38.70	Bachelor's degree
Managers, All Other	350	410	1.6%	$37.40	HS or equivalent
General and Operations Managers	1,050	1,100	0.5%	$36.00	Associate's degree
Physical Therapists	100	150	4.0%	$35.40	Doctoral or professional degree
Software Developers, Applications	120	140	1.9%	$33.20	Bachelor's degree
Fastest Growing Occupations					
Heating and Air Conditioning Mechanics and Installers	190	290	5.3%	$18.70	Postsecondary non-degree award
Cement Masons and Concrete Finishers	190	290	5.1%	$16.00	Less thanHS
Coaches and Scouts	150	230	5.0%	$16.90	HS or equivalent
Drywall and Ceiling Tile Installers	150	220	4.7%	$15.00	Less than HS
Carpenters	440	620	4.2%	$16.90	HS or equivalent
Physical Therapists	100	150	4.0%	$35.40	Doctoral or professional degree
Medical Secretaries	110	160	4.0%	$13.70	HS or equivalent
Healthcare Support Workers, All Other	140	200	4.0%	$18.40	HS or equivalent
Educational, Guidance and Vocational Counselors	170	230	3.9%	$20.70	Master's degree
Painters, Construction and Maintenance	130	180	3.8%	$11.20	Less than HS

*Minimum 100 Occupations in Base Year 2010

Figure 4: Growth and Hourly Wages for Occupations with Different Educational Requirements



Employment by Industry and Other Economic Gauges

BY TYSON SMITH, ECONOMIST

Regional Overview

Second quarter employment in the Bear River Economic Service Area (ESA) grew 2.0 percent from 2012 to 2013. In total, the service area added 1,385 nonfarm payroll jobs year-over-year for a quarterly average of 69,607 employees. Bear River increased employment at a slower rate than the rest of the state, which grew 3.2 percent over the same period. Annual growth across the state and in Bear River slowed from first quarter rates of 3.5 and 2.1 percent, respectively.

Industry Employment in Bear River

Aligning firms and organizations that perform similar functions provides a construct for examining employment and the economy. Total nonfarm employment contains 20 industry sectors that can be grouped into two super sectors: Goods-producing and service-providing.

Private-Sector Goods-Producing Employment: In the second quarter of 2013, 26.7 percent of total nonfarm employment in Bear River was in private sector goods-producing jobs compared to the state average of 15.9 percent. Private employment in this super sector grew at a rate of 2.1 percent per year, adding 389 jobs. Construction employment drove the growth in this super sector, increasing at a rate of 5.2 percent.

Private-Sector Service-Providing Employment: Over 50 percent of the nonfarm jobs in Bear River are in private sector service-providing employment. Service-providing private employment increased by 736 jobs, or 2.2 percent, from the second quarter of 2012 to the second quarter of 2013. The educational, health and social services, leisure and hospitality, and financial activities sectors added 560, 237 and 123 jobs, respectively; the largest numeric increases in the service area.

Government Employment: government employment is generally classified in the Service-providing super sector, however, the government sector functions differently than the private sector and should therefore be evaluated separately. In Bear River, government jobs represent almost one-fourth of the employment. Total government employment in the service area grew by 1.6 percent year-over-year. Local and State Government employment increased by a total of 272 employees over the year, while the number of federal government jobs decreased by 15.

Unemployment rates have fallen over the last year while employment has grown. In October 2012 the seasonally adjusted unemployment rate for the ESA was 4.9 percent, compared to 4.2 in 2013. The 0.8 percentage point difference represents an estimated 2,331 less people unemployed. Over the last six months the unemployment rate has remained relatively stable, after falling 0.3 percentage points in May. In October, the Bear River unemployment rate was 0.4 percentage points below the state average of 4.6 percent.

The average number of unemployed people filing initial unemployment insurance claims also decreased from the second quarter of 2012 to the second quarter of 2013, though the difference was minimal. Approximately eleven fewer weekly initial unemployment claims were filed during the second quarter, year-over year.

Economic growth and increased employment helped foster an increase in consumption in the second quarter of 2013. Taxable sales for the WFN increased 6.1 percent year-over-year to a total of approximately $508.6 million. As labor market conditions trend toward recovery, consumption should increase proportionately.

Box Elder County

Total nonfarm employment in Box Elder County increased 3.2 percent year-over-year in the second quarter. From 2012 to 2013 Box Elder County added 532 jobs, resulting in total nonfarm employment equal to

Employment by Industry Continued

16,948. Figure 5 highlights the changes in employment by industry groups:

- **Private-Sector Goods-Producing Employment:** Increased 4.8 percent, or 263 jobs, from the second quarter of 2012. Manufacturing, the county's largest industry, added 254 jobs.
- **Private-Sector Service-Providing Employment:** Added 185 jobs year-over-year, a growth rate of 2.2 percent. The educational, health and social services and the trade, transportation, and utilities sectors each tallied 67 and 59 new jobs.
- **Government Employment:** Second quarter government employment grew 3.2 percent from 2012 to 2013. the local government added 94 employees, but federal government lost 9 jobs, while state government lost 1 job.

The Box Elder County unemployment rate settled at 5.6 percent in October 2013, which represents a 0.1 percentage point increase from September. Over the last 12-months the county unemployment rate fell 1.1 percentage points. Box Elder County was 1.0 percentage points higher than the state average in October.

On average, the number of initial unemployment claims filed per week in the third quarter decreased by one claim from 2012 to 2013. The average number of weekly claims in the third quarter was down by approximately 17 claims per week from the peak of 44 in 2010.

Second quarter taxable sales in the county increased 7.6 percent from 2012 to 2013, more than twice as fast as the state average of 3.1 percent. In the second quarter of 2013 taxable sales were

Figure 5: Box Elder County Changes in Employment

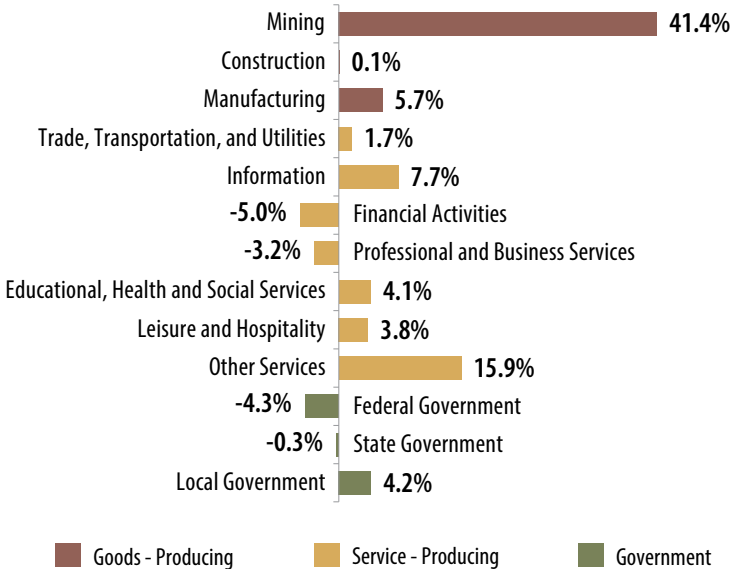
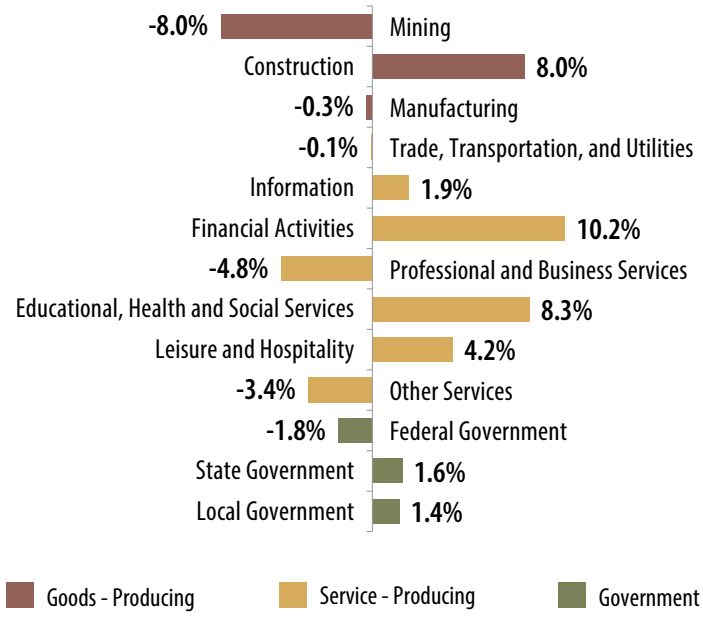


Figure 6: Cache County Changes in Employment



approximately $141.7 million, which was an increase of approximately $9.9 million from the previous year.

Cache County

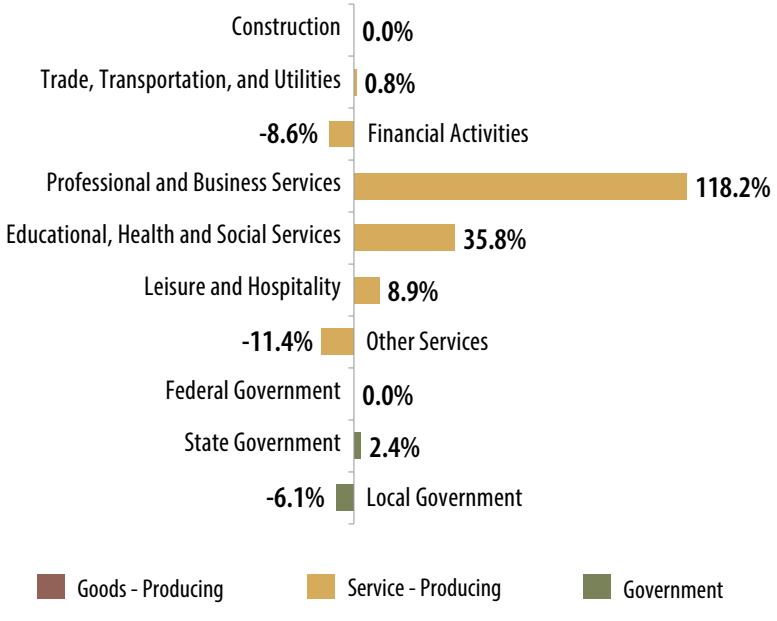
Second quarter total nonfarm employment in Cache County grew 1.6 percent from 2012 to 2013. Cache County added 826 nonfarm jobs year-over-year, resulting in total employment equal to 51,986. Figure 6 illustrates the employment changes by industry groups.

- **Private-Sector Goods-Producing Employment:** Increased by 123 jobs, or 1.0 percent, from the second quarter of 2012. Construction, which added 157 jobs, was the only goods-producing industry to add employment.
- **Private-Sector Service-Providing Employment:** Grew 2.0 percent year-over-year, adding 520 jobs from second quarter 2012 to second quarter 2013. Educational, health and social services and leisure and hospitality increased by 485 and 170 jobs, respectively.
- **Government Employment:** Second quarter government employment rose from 12,860 in 2012 to 13,044 in 2013, 1.4 percent. The local government added 75 employees, and state government gained 115 jobs.

The unemployment rate in Cache County was 3.7 percent in October 2013, a 0.1 percentage point decrease from September. Since October 2012, the county unemployment rate has fallen 0.7 percentage points. Cache County's unemployment rate was relatively low when compared to the state average of 4.6 percent in October. The average number of initial unemployment claims filed per week in the third quarter of 2013 was 36 claims, 10 fewer than 2012 and 42 fewer than 2010.

Year-over changes in taxable sales increased faster than state averages in the second quarter 2013. Taxable sales in the county rose 5.6 percent from 2012 to 2013. In the second quarter of 2013 taxable sales were approximately $360.0 million, which was an increase of approximately $19.2 million from the previous year.

Figure 7: Rich County Changes in Employment



Rich County

Second quarter total nonfarm employment in Rich County increased 4.1 percent year-over-year. Total employment in the second quarter of 2013 in Rich County was 674, a 27 job increase from the same period in 2012. Figure 7 shows the changes in employment by industry groups.

- **Private-Sector Goods-Producing Employment:** Increased 6.8 percent, or four jobs, from the second quarter of 2012. Construction, which makes up three-quarters of all goods producing jobs in the county, did not add any jobs from 2012 to 2013.
- **Private-Sector Service-Providing Employment:** Added 34 jobs, a growth rate of 9.3 percent from the previous year. The professional and business services and the leisure and hospitality sectors increased by 22 and 13 jobs, respectively.
- **Government Employment:** Government employment shrank by 4.8 percent from the second quarter 2012 to the second quarter 2013. State government added one employee, while local government lost 12 jobs.

October's unemployment rate for Rich County was 3.7 percent, which represents a 0.1 percentage point decrease from the month prior. Over the last year, the county unemployment rate has fallen 0.9 percentage points. Rich County was 0.9 percentage points lower than the state rate in October. On average, the number of initial unemployment claims filed per week in the third quarter decreased by almost one claim from 2012 to 2013.

Second quarter taxable sales in the county increased 3.3 percent from 2012 to 2013, nearly identical to the state average. In the second quarter of 2013 taxable sales were approximately $6.8 million, which was an increase of approximately $218,335 from the previous year.

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The Making of Occupational Projections

BY MELAUNI JENSEN, LMI ANALYST

Every state is required to produce projections by the Bureau of Labor Statistics (BLS), the source of national long-term industry and occupational projections. Every two years, the Department of Workforce Services (DWS) Economists offer long-term industry and occupational projections. \The occupational projections discussed in this issue of Local Insights reveal trends for growth or decline of workers by occupational groups and specific occupations. The ten-year period provides guidance for the public to make more informed decisions about their long-term goals. The projections contain valuable information about the likely future number of job openings and wages.

As you may know, industries represent businesses providing or producing the same products or services, while occupations describe work that requires certain tasks, duties or responsibilities. Occupations are coded using the Standard Occupational Coding (SOC) system that contains standardized and occupation-specific descriptors, requirements and worker attributes. This system is used for the entire nation and helps to better identify the occupation a worker may be looking to obtain. These are also grouped with similar occupations with comparable duties, called occupational groups. Approximately 5,000 employers receive the annual Occupational Employment Statistics (OES) survey from DWS in Utah, making it the largest and best wage and occupational survey in the state. This survey provides data on occupational staffing patterns that are established and applied or distributed for most industries, giving the economists the data they need to develop employment estimates for roughly 700 identified occupations and are prepared at a statewide level and for eight sub-state areas.

The first step in developing occupational projections is to generate industry projections using the Long-Term Industry Projections System (LTIP) provided by BLS. DWS Economists produce employment estimates for about 95 different industries in the state. After producing industry projections, economists then create the occupational projections by analyzing the results from the OES survey. In addition to the employment estimates from the OES survey, the MicroMatrix software system used by all states generates estimates of the number of annual average job openings expected to occur during the projections period. Growth occurs when positions are created, while replacement happens when workers leave an occupation therefore needing to be replaced. The education, work experience or job training generally required for the occupations are also included in the occupational projections to provide even more information. These are provided by BLS and contain information about the typical education and training requirements for an occupation.

DWS Economists have used time-tested economic theory along with economic tools to provide occupational projections and do not promise 100 percent accuracy. They are made with the understanding that major events can happen with policies, demographic trends or even natural disasters to tip the trends of the economy. By using these resources to "tell the future", it provides more consistent and valid projections.